

Activity Preparation for Chapter 3

Activity/Investigation	Advance Preparation	Time Required	Other Considerations
<i>Find Out: Is It a Mixture or a Pure Substance?</i> (page 58) (TR page xx)	<ul style="list-style-type: none"> • 1 or 2 days before <ul style="list-style-type: none"> – Prepare a class set of labelled plastic transparent containers of each substance. 	<ul style="list-style-type: none"> • 30–45 min 	
<i>Find Out: Separate a Three-Part Mixture</i> (page 62) (TR page xx)	<ul style="list-style-type: none"> • 1 day before <ul style="list-style-type: none"> – Prepare the three-part mixtures of iron filings, salt, and sand. Mix them together thoroughly so it looks like there are only two solids in the jar. The sand will make the salt look dirty. – If you choose to use them, photocopy any assessment masters. 	<ul style="list-style-type: none"> • 45–60 min 	<ul style="list-style-type: none"> • You may want to demonstrate how to fold the filter paper. • Don't use sugar instead of salt. Since sugar has a lower melting point, it is harder to get the water to evaporate without burning the sugar.
<i>Find Out: Testing for Elements and Compounds</i> (page 68) (TR page xx)	<ul style="list-style-type: none"> • 1 day before <ul style="list-style-type: none"> – Obtain required equipment and materials. – If you choose to use them, photocopy any assessment masters. 	<ul style="list-style-type: none"> • 45–60 min 	<ul style="list-style-type: none"> • Demonstrate the correct method of holding the mouth of the test tube away from anyone's face as you do the pop and glowing splint tests.
<i>Test It: Compare the Melting Points and Boiling Points of Water and Salt Water</i> (page 71) (TR page xx)	<ul style="list-style-type: none"> • 1 day before <ul style="list-style-type: none"> – If you choose to use them, photocopy Master 1 Centimetre Grid Paper, Master 2 Safety Precaution Symbols, BLM 1–1 Using a Hot Plate, BLM 3–4 Suggested Procedure for Test It!, and any assessment masters. • Day of <ul style="list-style-type: none"> – After planning with students, gather the materials for the next lab period. Or, gather the materials in advance and give students planning hints by showing them the equipment. 	<ul style="list-style-type: none"> • 90–105 min (30–45 min for group planning; overnight to make ice cubes and salt ice cubes; 60 min to run the investigation) 	<ul style="list-style-type: none"> • Provide students that have trouble devising their own procedures BLM 3–4 Suggested Procedure for Test It!

Materials Needed for Chapter 3

Activity/Investigation	Apparatus	Materials	Blackline Masters
<i>Find Out: Is It a Mixture or a Pure Substance?</i> (page 58) (TR page xx)	<ul style="list-style-type: none"> transparent plastic containers magnifying glass 	<ul style="list-style-type: none"> chalk graphite iron filings salt sugar water salt and pepper sugar water plastic fork foam cup 	
<i>Find Out: Separate a Three-Part Mixture</i> (page 62) (TR page xx)	<ul style="list-style-type: none"> magnet test tube rubber stopper test tube rack support stand filter paper funnel ring clamp evaporating dish Bunsen burner or hot plate waxed pencil paper 	<ul style="list-style-type: none"> plastic wrap iron filings salt water 	<p>Recommended</p> <p>Assessment Master 2 Co-operative Group Work Rubric</p> <p>Assessment Master 12 Using Tools and Equipment Rubric</p> <p>Optional</p> <p>Assessment Master 1 Co-operative Group Work Checklist</p> <p>Assessment Master 11 Using Tools and Equipment Checklist</p>
<i>Find Out: Testing for Elements and Compounds</i> (page 68) (TR page xx)	<ul style="list-style-type: none"> 3 test tubes tweezers or tongs test tube rack stoppers 3 wooden splints matches scoop 	<ul style="list-style-type: none"> hydrochloric acid (dilute) zinc vinegar baking soda hydrogen peroxide (3%) manganese dioxide 	<p>Recommended</p> <p>Assessment Master 10 Safety Rubric</p> <p>Assessment Master 12 Using Tools and Equipment Rubric</p> <p>Optional</p> <p>Assessment Master 9 Safety Checklist</p> <p>Assessment Master 11 Using Tools and Equipment Checklist</p>
<i>Test It: Compare the Melting Points and Boiling Points of Water and Salt Water</i> (page 71) (TR page xx)	<p>Note: This list may vary according to student lab designs.</p> <ul style="list-style-type: none"> ice cube trays beakers hot plates thermometers 	<ul style="list-style-type: none"> salt water 	<p>Recommended</p> <p>OHT A–12 to OHT–14 Test It! Compare the Melting Points and Boiling Points of Water and Salt Water</p> <p>Assessment Master 13 Fair Test Checklist</p> <p>Assessment Master 14 Fair Test Rubric</p> <p>Optional</p> <p>BLM 1–1 Using a Hot Plate</p> <p>BLM 3–4 Suggested Procedure for Test It!</p> <p>Assessment Master 10 Safety Rubric</p> <p>Assessment Master 12 Using Tools and Equipment Rubric</p>